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Executive Summary

Title: Washington's War: A Study in Operational Design

Author: Major Daniel J. Gross, United States Army

Thesis: This examination argues that, criticism to the contrary notwithstanding, Washington was indeed a brilliant strategist and a master of design, expertly using his limited resources and outmatched forces against the daunting military machine of King George III. By using current US doctrine of operational design as a lens of analysis, this paper asserts that Washington was a preeminent applicator of operational art.

Discussion: When one thinks of great American military strategists and applicators of operational art, names other than George Washington usually float to the top of our minds because of his allegedly mediocre tactical results. Washington's body of work is typically studied through the lens of organization, inspiration, and resilience. Many military scholars often criticize his work as a military strategist, while other military intellectuals, including cadre at the Marine Corps Command and Staff College, label Washington as a great insurgent leader, insinuating his aversion to a decisive battle and lack of large offensive campaigns make him an insurgent leader. However, from 1775 to 1781, George Washington designed a legitimate plan to defeat the greatest military power on earth, and his success was not by accident or by avoiding engagements. George Washington capitalized on British mistakes and incorporated a coherent design approach that ultimately resulted in the desired military endstate for the young American nation by successfully utilizing objectives, military endstate, centers of gravity, critical vulnerabilities, direct and indirect approaches, area of influence, and operational reach.

Conclusion: Although the American Revolution was a conflict in a different era and well prior to the theories of Clausewitz and modern military doctrine, the study of George Washington's operational design against the most modern and professional military in the late 1700s provides great insights, lessons, and takeaways for both today's and tomorrow's military leaders.

I confess that I have not found that readiness to defend even strong posts, at all hazards, which is necessary to derive the greatest benefit from them. The honor of making a brave defense does not seem to sufficient stimulus, when the success is very doubtful, and the falling into the Enemy's hands probable.¹

-George Washington

Introduction

When one thinks of great American military strategists and applicators of operational art, names other than George Washington usually float to the top of our minds because of his supposedly mediocre tactical results. Washington's body of work is typically studied through the lens of organization, inspiration, and resilience. Many military scholars often criticize his work as a military strategist, claiming "grand strategy was not [Washington's] forte," that he was "not a consistently brilliant strategist or tactician," and that "he was less than a brilliant strategist... his method can only be described as persistence."² Other military intellectuals, including cadre at the Marine Corps Command and Staff College, label Washington as a great insurgent leader, insinuating his aversion to a decisive battle and lack of large offensive campaigns make him an insurgent leader. But an insurgent is defined as one who uses "subversion," which focuses on corruption and sabotage.³ As the leader of a belligerent nation as of mid-1776, George Washington was not an insurgent but a legitimate belligerent who commanded an organized military based on operational design. This examination intends to argue that, criticism to the contrary notwithstanding, Washington was indeed a brilliant strategist and a master of operational design, expertly using his limited resources and outmatched forces against the daunting military machine of King George III. By using current US doctrine of operational design, that is, Joint Publications 3-0 and 5-0, as a lens of analysis, this paper asserts that Washington was a preeminent applicator of operational art. However, it does not intend to

speculate the "what if" scenarios or claim ineptitude of already accomplished British generals, that some scholars suggest.

Current US joint doctrine defines operational design as the "conception and construction of the framework that underpins a campaign or major operation plan and its subsequent execution." Why does operational design have applicability in this examination? Joint Publication (JP) 5-0 argues, "The interaction of operational art and operational design provides a bridge between strategy and tactics, linking national strategic aims to tactical combat and noncombat operations that must be executed to accomplish these aims." Therefore, the study of the American Revolution through this lens provides insight and proof that Washington's theory and application in military operations against the British make him a model of study for today's military leaders. Within the construct of operational design, the key elements under examination and analysis to support this hypothesis are military endstate, centers of gravity, direct and indirect approach, area of influence, and operational reach. While the other elements also contain useful arguments, they are discussed within the aforementioned elements.

Military End State / Objectives

First and foremost, a leader must have a clear outcome in order to formulate achievable objectives to create the conditions for a successful conclusion to the conflict. Specifically, current US doctrine addresses such an outcome in terms of a military endstate:

Military end state is the set of required conditions that defines achievement of all military objectives... These [objectives] are usually expressed in military, diplomatic, economic, and informational terms and help define and clarify what military planners must do to support the national strategic end state. Objectives developed at the national-strategic and theater strategic levels are the defined, decisive, and attainable goals toward which all operations, not just military operations, and activities are directed.⁷

The desired military endstate for the Americans differed among the nation's various military and political leaders throughout the war. This applies even to what has been described

as a "Liberty's Vanguard" of colonies: Massachusetts, Virginia, South Carolina, and Connecticut. Early on, even in these colonies, many wanted simply to beg forgiveness for the rebellious acts and regain a peaceful status. Others argued for military use as leverage at the bargaining table to regain that peaceful status. On the other side of the spectrum, others wanted to capitalize on the wave of early successes and seek independence, either as a colony turned state or as a united confederation of colonies. Many agreed there were common objectives across the elements of national power that included issues of taxation, government representation, privacy rights, free trade, and the invasive presence of troops. Ultimately, the British reaction to the initial violence in Massachusetts Colony would steer the future country one way or the other and galvanize their resolve for a peaceful or hostile endstate.⁸

At the commencement of the American Revolution, there was a general consensus among British leaders on the ultimate aim of the war. The endstate was simply the restoration of the colonies to the pre-war status of compliant and thriving contributors and members under the British crown. The rift among the policy makers existed, however, on the objectives. The ministers agreed they neither wanted to kill large numbers of rebellious subjects nor destroy the land or cities as they both were an integral part to their economic and industrial livelihood that provided an enhanced standard of living to the homeland. Therefore, they promoted continued pacification through the diplomatic and economic aspects of national power. General Thomas Gage misunderstood the resolve of the American political cause, stating the rebels would be "Iyons [sic] whilst we are lambs but if we take the resolute part they will be very meek." King George III, after several repealed taxation attempts and several embarrassing acts of displayed defiance, agreed with Gage and desired to set an example through military actions that deterred any further aggression against his authority. In the end, the objectives that King George III

supported, along with a majority of Parliament and his Prime Minister, Lord North, formed a more brute strategy of "blows must decide whether they are to be subject to this country or independent" in order to crush any further exertion of liberties against the crown. ¹⁰

Center of Gravity

How did the British then fail to turn their desired endstate into an achievable operational plan? They began by not correctly analyzing the American center of gravity. Most of the British leaders failed to identify the Continental Army as the correct American center of gravity until too late in the war. The German military theorist, Carl von Clausewitz, states in *On War*, "[A] certain center of gravity develops, the hub of all power and movement, on which everything depends." He expounded further, stating, "It is against these that our energies should be directed. If the enemy is thrown off balance, he must not be given time to recover. Blow after blow must be aimed in the same direction." Current US military theory and doctrine deviate little from Clausewitz. US Army doctrine expounds on Clausewitz:

A *center of gravity* is the source of power that provides moral or physical strength, freedom of action, or will to act. The loss of a center of gravity can ultimately result in defeat. The center of gravity is a vital analytical tool... It provides a focal point, identifying sources of strength and weakness... Faulty conclusions drawn from hasty or abbreviated analyses can adversely affect operations, waste critical resources, and incur undue risk... This understanding helps planners identify... decisive points and the best approach for achieving the desired end state.¹²

Where the British leaders failed, George Washington excelled by correctly analyzing his Continental Army as the friendly center of gravity. He appreciated that the Continental Army was the only organization and training mechanism for military forces in the nation. Without his Continental Army, no amount of money or supplies could reconstitute an organization to counter the main British Army and their ability to move with impunity. The Continental Congress, who had no money, had no legitimacy or infrastructure to enforce anything among the populace

outside of the Continental Army. If it surrendered, all popular support for a rebellion would likely crumble as that particular Army was the face of the rebellion. In a letter to Congress on September 8, 1776, Washington cemented this understanding:

On our side, the war should be defensive... It has been called a war of posts... We should on all occasions avoid a general action, and never drawn into a necessity to put anything to risk... I am sensible that a retreating army is encircled with difficulties; that declining an engagement subjects a general to reproach; but when the fate of America may be at stake on the issue, we should protract the war, if possible.¹³

Admittedly, Washington knew he was expected to stand and fight as Commander of the Continental Army. Although he understood the Continental Army was the center of gravity for the United States, his primary mission was to defend the nation with that Army. Therefore, he could not intentionally sacrifice cities and states for the sake of preserving the Army, so he had no choice but to prepare for and fight for each. However, he always ensured the Continental Army was "never drawn into a necessity to put anything to risk" by always ensuring he had a solid retrograde plan in place.

There is likely nobody else in the American Revolution who could better appreciate the challenge of keeping an army intact than George Washington, which is why he was the right leader at the right time for the United States. His experiences in the French and Indian War gave him even more reason to fight the way he did. The experience of Fort Necessity, where he fought a futile attempt to defend indecisive terrain with no escape, taught him how utterly devastating and final the surrender of a force can be. His experience with Braddock's defeat along the Monongahela taught him the importance of having a retrograde plan, to retreat when the enemy had the decisive position, and the importance of multiple advance axes that can support one another. These lessons displayed themselves time and again during the rebellion and arguably saved his Continental Army from destruction on multiple occasions.

This retrograde fighting strategy was evident during Washington's defense of the major contested cities of New York and Philadelphia. During the New York campaign in 1776, Washington established a defense in depth plan that committed large numbers of troops that could deliver a decisive action but did not risk the main Army. This happened in 1776 at Long Island, Kip's Bay, and Forts Washington and Lee. The Philadelphia campaign in 1777 differed a little in that he deployed the entire Continental Army for a decisive battle at Brandywine.

Realizing he lost the initiative when flanked at Brandywine, Washington opted for the tactical defeat and subsequent retrograde instead of potentially risking his avenue of retreat. Washington was then left with little alternative other than fighting a delaying defense with a smaller portion of his force. This attempt culminated at Paoli when Anthony Wayne's small force was surprised and forced to deliver Philadelphia to the enemy while the main Army completed its retrograde to the northwest of the city.

Using New York and Philadelphia as insightful examples, the operational design was to continue to fight and attrite British forces, but never place the Continental Army at a decisive point to fully capitulate. In short, risks for victory were not as important as risks of his Army. ¹⁶ This, obviously, is not an easy plan to sell to a Congress who is eager to win a war quickly. However, several key individuals understood Washington's plan of patiently waiting to grind the enemy and only fight when he had an advantage to exploit. Henry Laurens, President of the Congress, wrote "In [Washington's ruin] would be involved the ruin of our cause. On the other hand his magnanimity, his patience will save his country and confound his enemies." ¹⁷

Washington did not convince many American Congressional and military leaders, though, that the preservation of a field army at all costs to oppose the British was the key to success. When the British launched their Southern campaign in 1780, Washington chose his

favorite lieutenant and understudy, Nathanael Greene, to command the Southern Department Army. Greene learned that losing a battle was acceptable to the American cause but the loss of an army was clearly not. After he surrendered at Fort Washington in September 1776, he bought into Washington's strategy. Nathanael Greene appreciated Washington's skill "to skirmish with the enemy at all times and avoid a general engagement." The two commanders Congress selected to command the Southern Department prior to deferring to Washington's recommendation did not share the same sentiment, though. General Benjamin Lincoln lost almost his entire army at Charleston, and General Horatio Gates suffered a similarly disastrous defeat at Camden three months later, both by implementing a plan without a retrograde plan to save their army. Greene, on the other hand, refused to make the same mistake against Cornwallis at Guilford Courthouse as shown by his decision to withdraw. He executed a withdrawal prior to culmination of the battle because he understood preservation of the army was more important than the tactical victory.

Washington, who served under British command during the French and Indian War, understood the British war machine. Washington knew North American wars were a costly business for Britain, which doubled their already shocking £72,000,000 debt to a ghastly £146,000,000 debt from the conduct of the French and Indian War.²⁰ He also knew, no matter how dominating the navy and how disciplined the army, they could not occupy such a large land mass as the American colonies. It can be deduced, based on Washington's statements and execution of the war, that he saw the British center of gravity as British popular support for retention of the American colonies. By degrading popular support for a costly war, there was a finite amount the public would endure to retain control of a profit-producing foreign land. At

some point, the public could be convinced that a free American nation would provide similar resources and commodities for little extra cost but far less burden on Britain.

Critical Capabilities and Vulnerabilities

To defeat a center of gravity, doctrine demands that we understand three critical factors: capabilities, requirements, and vulnerabilities. JP 5-0 defines critical capabilities as "those that are considered crucial enablers for a COG to function as such, and are essential to the accomplishment of the adversary's assumed objective(s)." Critical requirements are the "conditions, resources, and means that enable a critical capability to become fully operational." Lastly, critical vulnerabilities are "those aspects or components of critical requirements that are deficient or vulnerable to direct or indirect attack in a manner achieving decisive or significant results."

Saying that the Americans had critical vulnerabilities in the Continental Army would be an understatement. Washington's fledgling Army was led by inexperienced leaders whose lack of formal training was superseded by their lack of experience. At the Soldier level, the lack of experience and discipline on the battlefield always created an open-field mismatch. The heavy reliance on militia was easily an area open to exploitation by the British. Congress' inability to pay the troops was plagued by not just the lack of money but their inability to consistently supply the troops. Reports were common of malnourishment, lack of proper clothing, and shortages of powder and ball. Constant pressure and attacks against the Continental Army surely would capitalize against any, if not all, of the American vulnerabilities.

To attack popular support for the war as the British center of gravity, Washington chose the critical vulnerability of financial strain. Specifically, both time and troops were critical capabilities that had direct impacts towards this critical vulnerability. The longer the war could be "protracted" and more troops required by the British in America, whether organic or in the form of mercenaries, the financial burden increased. Ultimately, if the financial strain increased taxes too high, British popular support would force the Crown to abandon the colonies and come to terms with having an independent America. With British Army enlistment levels already low, Washington could even hope for a British conscription, which would most definitely degrade the popular support.²²

Despite having the greatest navy in the world at the time, the British Army only numbered about 48,000, only a fraction in size of traditional European powers such as the Franch Army. However, size being equal, the British Army outmatched any army on the European continent at the onset of the war in discipline, training, professionalism, and technology. Of the 48,000, over 13,000 were stationed outside of England, Ireland, and the American colonies and, therefore, not available for use.²³ To combat the American rebellion, the British authorized the Army's numbers to increase an additional 50,000. When the Crown could not find enough fit and willing to fight abroad, King George III resorted to hiring over 30,000 German mercenaries at an enormous cost.²⁴ Even when doubling the numbers of the current Army and adding Loyalist militia numbers, American numbers dwarfed those in support of the Crown. Although the Americans could not consistently field an Army over 10,000, Henry Knox estimated at least 232,000 American men served in some capacity in the militia or Continental Army during the war. 25 Washington did not call it a war of attrition, but continued engagements most definitely dug into the finite numbers of European professional soldiers and ate into the war treasury in the form of the bounties and payroll needed to keep the ranks filled.

Direct and Indirect Approach

But even if the British correctly identified the American center of gravity, how does one defeat the enemy center of gravity? Clausewitz identified this same dilemma, offering, "There is only one point that, at first sight, seems self-contradictory, and that, because it is one of the most important points in defense, is all the more in need of further development: it is how to hit the enemy's exact center of gravity."²⁶ To address the issue of how to defeat the enemy center of gravity within operational design, current US doctrine delineates direct and indirect approaches. Current doctrine defines the approaches by stating, "A direct approach attacks the enemy's center of gravity or principal strength by applying combat power directly against it. An indirect approach attacks the enemy's center of gravity by applying combat power against a series of decisive points that lead to the defeat of the center of gravity while avoiding enemy strength."²⁷

While most of the British leaders identified the Continental Army as a main objective (although not likely as the center of gravity), there was a varying array of approaches on defeating the rebellious colonies. Many officers, ministers, and members of Parliament decided on an indirect approach, attacking critical capabilities, requirements, and vulnerabilities. Most of the critical capabilities and vulnerabilities focused on seizing population centers and severing lines of communications with an emphasis on denying logistical support. General Henry Clinton and General John Burgoyne believed control of the Hudson River would isolate the base of the rebellion (New England) from its base of supplies, forcing Washington to fight or disband because the Army could not sustain itself. A captured British officer in 1777 stated, "Had we kept possession of the [Hudson] River, the war would have been by this time nearly terminated in favor of Great Britain." Benedict Arnold, shortly after switching to support the British, argued that either the Hudson River line or the middle colonies of Maryland and Virginia must

be secured in order to strangle the Continental Army.²⁹ Effectively cutting the colonies into sections, Arnold knew the lack of supplies available to the Continental army would quickly force Washington into a decisive battle the British needed because he would be unable to sustain his forces. Neither of these methods proved themselves due to the large number of troops required, lack of Loyalist support received, and unexploited opportunities.

Several leaders, however, decided on the direct approach. JP 5-0 acknowledges that "centers of gravity are generally well protected and not vulnerable to a direct approach." Based on the Redcoat tactical successes in the American Revolution, this approach seemed the most feasible based on terrain, troops available, time available, and the fiscal strains of the Crown. General William Howe acknowledged he sought a decisive battle to destroy the main Continental Army. He stated, "My opinion has always been that the defeat of the rebel regular army is the surest road to peace." Later, he admitted, "I invariably pursued the most probable means of forcing its commander to action." Lord Charles Cornwallis displayed this direct approach strategy through action in his campaign to destroy the southern army under Gates and Greene in the Carolinas in 1780-1781.

Even though both Howe and Cornwallis had the correct solution by using the direct approach, neither had the resolve to instill the Clausewitz mantra, "If the enemy is thrown off balance, he must not be given time to recover. Blow after blow must be aimed in the same direction." Howe allowed Washington to reconstitute after the New York/New Jersey Campaign and after Brandywine, and Cornwallis let Gates and Greene reconstitute following Camden and Guilford Courthouse. Washington gave them the hard choice of continuing a long campaign or stopping to reset and reconstitute, claiming victory by holding the field and securing the terrain-based objectives of the operation. Ultimately, both settled for the tactical and

operational objectives of New York/Philadelphia and Charleston/Carolina campaigns, respectively, instead of pushing their forces to potentially achieve a strategic victory to potentially end the war by defeating a center of gravity.

Area of Influence

The British failed beyond just center of gravity and critical vulnerability analysis in their approach to problem framing the American rebellion. Their failure to understand the operational environment consistently plagued them throughout the American Revolution. To explain the operational environment, Joint Publication (JP) 3-0 states:

[T]he composite of the conditions, circumstances, and influences that affect employment of capabilities and bear on the decisions of the commander. It encompasses physical areas and factors (of the air, land, maritime, and space domains) and the information environment. Included within these are enemy, friendly, and neutral systems that are relevant to a specific joint operation. The nature and interaction of these systems will affect how the commander plans, organizes for, and conducts joint operations. ³³

Within the physical areas of the operational environment, joint doctrine uses areas of operations, areas of influence, and areas of interest to aid in understanding effects and to frame the impacts the joint force has on the surrounding areas. JP 3-0 defines area of influence as "a geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control. The area of influence normally surrounds and includes the assigned operational area."³⁴ General Washington clearly understood these, especially how his Continental Army inhibited the area of influence of the British. But why was controlling the area of influence so important to the American cause?

The first reason that controlling the British area of influence was important was logistical support. Washington's struggle to keep his army clothed, fed, and armed dominated his time and efforts throughout the war. His Continental Army teetered on the brink of self-imploding

multiple times due to lack of provisions. At Valley Forge, he noted, "I am now convinced beyond a doubt, that unless some great and capital change suddenly takes place in that line [the commissary], this Army must inevitably be reduced to one or other of these three things. Starve-dissolve or disperse."³⁵ In order to retain popular support and gain the support of those on the proverbial fence, Washington could not simply commandeer the supplies. However, even willing farmers were unwilling to sell provisions for worthless continentals but instead sold their goods to the British who paid in hard currency.³⁶ But by controlling as much of the countryside as possible and not population centers, he both maximized the amount of willing farmers to cheaply sell or donate food and supplies to the Army and gave the local farmers no alternative other than the Continental Army.

The second reason is the recruiting war. Although Loyalist support probably only ranged in the 20 to 25 percent range, the support from Loyalist militia was only effective in areas physically secured by British regulars.³⁷ The small numbers of British units (with Hessian mercenaries) in North America could be effectively isolated from partisan support if their area of influence was limited to only the area of operations. Able and willing Loyalists outside of British area of operations were simply not organized, emboldened, and strong enough to provide overt combat support. Prior to the embarrassing defeat at Lexington and Concord, General Thomas Gage both understood the difficult and rugged terrain of 18th century America and recognized the growing rebellious sentiment. He insisted that subduing the New England colonies alone would require at least 20,000 troops, versus his 4,000, and take two years to accomplish. With over twenty years of experience in North America and multiple combat operations, the British Crown refused to acknowledge his advice. Instead, with their small field army and amassed debt, British leadership decided to force Gage into retirement.³⁸

The third reason was an ideological one. Psychological support for the rebellion, no matter how popular the cause, was tightly tied to the popular opinion of chances of winning the war. Hardline patriot supporters could be counted on for uninhibited support, but their numbers were just too small to provide the support needed. However, those who wanted to support the rebellion, whether by fiscal means, logistical aid, militia support, etc., would not willingly provide it without overwhelming fear of British reprisals or punitive action if caught. Limiting the British area of influence kept the Crown's presence away from the majority of the colonists, creating the perception they were not in danger. While it may not have convinced those sympathetic colonists that the Americans were winning or going to win, it gave them the opportunity to overtly support the rebellion without the fear of punishable sedition.

Now that the "why" has been explained, we need to examine "how" Washington was able to limit the British area of influence in spite of the Continental Army's lack of discipline, manpower, and supplies. This is explained through Washington's implementation of three tenets. The first tenet was the use of limited offense transitioned from the defense. Clausewitz explains this by saying, "A defender must always seek to change over to the attack as soon as he has gained the benefit of the defense." While protecting his Army as the center of gravity, Washington executed offensive actions when the British Army had either vulnerable lines of communication or overextended areas of operation beyond which it could secure. These offensive actions worked at Trenton and Princeton but provided poor results at Germantown and Monmouth Courthouse. However, tactical victories were not as important as the operational effect they created on future British operations. Each of these limited offensive actions forced a consolidation of forces and increased force protection measures that limited the area of battlespace the British physically secured.

In order to protect his center of gravity, Washington primarily conducted some form of limited offensive operations to avoid catastrophic risk. As a result, he always conducted the offensive operations with only a portion of his Army so that no matter how poorly his undisciplined and untrained units performed, the Army would live to fight another day. This unwritten doctrine presented itself multiple times, namely Princeton, Stony Point, and Paulus Hook. The engagements at Stony Point and Paulus Hook, small as they were, not only seized those posts and captured the defending garrisons but forced the British to reassess their security posture. This led to General Clinton's decision to abandon the strategic port of Newport without a fight and shrink his defenses in New York to deter further expeditions. When Washington did deviate from this doctrine at Trenton, Germantown, and Monmouth, he committed the entire Continental Army. In these cases, however, he ensured that a clear avenue for retreat was available. Additionally, the offensive movements were done using multiple axes of advance or piecemeal to ensure the entire Continental Army was not placed in a position that risked a decisive blow of annihilation.

Because Washington's smaller and far less-disciplined force could not tactically block movements, he decided to disrupt, fix, and delay enemy movements to "protract the war." This second tenet is most evident in operations along the Lake Champlain and Hudson River axis of advance in 1776 and 1777. In July of 1776, Benedict Arnold argued successfully to abandon Montreal and all area south to Lake Champlain. Washington fully agreed with this course of action in a letter to Philip Schuyler, commander of the Northern Department, saying, "[W]e should make a stand as low down as we can, so as not to have a retreat cut off in case of necessity." This plan, which resulted in the Battle of Valcour Island, ceded a large chunk of land to the British. However, it forced them to delay significantly in order to build a makeshift

navy that ultimately delayed the expedition so long that they delayed the British campaign of the Hudson River an entire year and ceded all the gained battlespace back to the Americans.

Likewise the following year, when General Burgoyne began his campaign preparations in Canada in early 1777, Washington outlined his thoughts to Philip Schuyler. If Burgoyne would push south towards Albany, Schuyler should strip the countryside of forage and transportation assets while disrupting and fixing him at key choke points. Schuyler followed Washington's guidance, setting up Burgoyne's disastrous foraging expedition at Bennington and ultimately his surrender at Saratoga later that year. 43

The third tenet used by Washington was to remain within striking range to the British army. This obviously created the best way to gain intelligence but it also forced the British to focus heavily on force protection and security measures. The British were unable to spread out into smaller bases to control larger sections of the battlespace and population because they had to position forces to mutually support each other in case of an American attack. As the "American Fabius," Washington ensured he remained mobile to quickly retreat if the British advanced. This last measure contained British influence to only what they could physically occupy, keeping their area of influence to a bare minimum. A British officer, in a personal letter, wrote "as we go forward into the country the rebels fly before us, and we come back they always follow us. 'Tis almost impossible to catch them. They will neither fight nor totally run away, but they keep at such a distance that we are always a day's march from them."

As a result of this third tenet to constrict the British area of influence, the Continental Army suffered several brutal winters. In order to contain British raiding and foraging parties inside the Philadelphia area, Washington chose the Valley Forge encampment for the winter of 1777-78. This site did offer the proximity needed to the British, but it provided little existing

shelter, supplies, food, and forage needed for the winter. This process would be repeated in 1777 after the Battle of Princeton and again over the 1779-80 winters at Morristown, New Jersey, in order to strategically limit British influence into the countryside. Just as at Valley Forge, Morristown itself did not have the capacity to house, supply, and feed the army, but it provided a close position to the British without the threat of any surprise amphibious insertion of troops.

Operational Reach

Whether the British analyzed and understood their own vulnerabilities is debatable. It is clear, however, that they undeniably exacerbated all their problems by not understanding their own capabilities when attacking American critical vulnerabilities within their operational reach. JP 5-0 defines operational reach as "the distance and duration across which a joint force can successfully employ military capabilities." However, current joint doctrine warns that "for any given campaign or major operation, there is a finite range beyond which predominant elements of the joint force cannot prudently operate or maintain effective operations." It further warns that a commander "must possess sufficient operational reach and combat power or other relevant capabilities to take advantage of an adversary's critical vulnerabilities while protecting friendly critical capabilities within the operational reach of an adversary."

The British navy provided an incalculable combat multiplier, especially in extending their operational reach. Already 3,000 miles from the American coastline, the navy projected combat power to not only the American seaboard but inland along the deep rivers and lakes where large-draft vessels could travel. Washington himself stated, "Next to the loan of money, a constant naval superiority on these coasts is the object most interesting." For this reason alone, he was forced into a cautious defensive war, unable to counteract the highly-mobile naval capability.

This theory was brutally realized in his inability to counter the navy at New York in 1776, where massive naval firepower and ability to forcibly land troops anywhere made any defense force susceptible to encirclement. Further, they had the ability to shift areas of operation prior to any American counteraction, as displayed at Savannah and Charleston late in the war. General Washington's realization of his inability to affect this force projection shaped his strategy throughout the war until he received the promise of a French Fleet in 1780. On the importance of the operational reach of the navy once he possessed it, he stated, "In any operation, and under all circumstances, a decisive naval superiority is to be considered as a fundamental principle, and the basis upon which every hope of success must ultimately depend."

The army provided little more vulnerability for Washington to exploit. As discussed earlier, the professional, hardened veteran armies moved with impunity across the colonies. Defensive stands were aimed only to delay and disrupt, not create the decisive battle as in a war of annihilation. But here is where Washington saw his sliver of opportunity, or chink, in the British war machine. The "finite" ability to "maintain effective operations" did exist outside of those coastal and riverine areas where the limited manpower of the British did not exist. Where the British could project troops thousands of miles as long as deep-water access was available, the army's limited rapid transportation capabilities, poor road networks, and ultimately increased lines of communication created an inland limit to meaningful force projection without large risks. Despite even supporters like John Adams criticizing his "Fabian" tactics, Washington drew British troops beyond that finite range by retreating away from deep water areas. He weakened the British army operational reach by forcing them to extend lines of communication. The British, who recognized this operational reach inadequacy, attempted to extend their reach through Loyalist support and Indian alliances. Loyalist support proved woefully inadequate in

the south and led to disasters at Moore's Creek Bridge and King's Mountain. Minimal success came in the north at Oriskany, where a task force of Loyalists and Indians from the Iroquois Confederation inflicted heavy losses on an American militia force but still could not hold the field.

Clausewitz lays out a similar method that a rebellion, or general uprising, needs to be effective:

- 1. The war must be fought in the interior of the country.
- 2. It must not be decided by a single stroke.
- 3. The theater of operations must be fairly large.
- 4. The national character must be suited to that type of war.
- 5. The country must be rough and inaccessible, because of mountains, or forests, marshes, or the local methods of cultivation.⁴⁸

All of Clausewitz' prescriptive conditions, except number four, fall within the discussion of operational reach. Washington met all of these operational reach conditions to his advantage. As previously mentioned, he contested the exterior of the country, such as New York and Philadelphia to an extent, but did not make it a decisive point of the conflict. Without Clausewitz as an advisor, he determined to use the "rough and inaccessible" land to level the playing field against a superior enemy. In mid-1777, Washington acknowledged British ownership of some of the battlespace but revealed how he dealt with it by forcing the British to leave more troops in the logistical base of New York and by pre-positioning forces to oppose them once they reached their finite operational reach:

It is of the greatest importance to the safety of a country involved in a defensive war to endeavor to draw their troops together at some post, at the opening of a campaign, so central to the theater of war that they may sent to the support of any part of the country the enemy may direct their motions against... Should the enemy's design be to penetrate the country up the Hudson River, we are well posted to oppose them; should they attempt to penetrate into New England, we are well stationed to cover them; if they move

westward, we can easily intercept them; and besides, it will oblige the enemy to leave a much stronger garrison at New York. 49

Conclusion

Although the American Revolution was a conflict in a different era and occurring well prior to the publication of the theories of Clausewitz and those of modern military doctrine, the study of George Washington's operational design against a modern and professional military giant in the late 1700s provides great insights, lessons, and takeaways for both today's and tomorrow's military leaders. First, high-level leaders must advise the civilian leadership that using the military as an element of national power is risky business. They must advise and prepare the civilian leaders for contingencies and potential risks against a foe that does not appear to be an existential threat. Failure in the military aspects of national power ultimately leads to decreased leverage and legitimacy in the others. The emotional decisions of the British leaders to use military power were not based on calculated certainties and ultimately led to the loss of the American colonies. On the other hand, military successes of the Americans due to operational design tipped the scales to produce a winnable scenario due to the entrance of French support.

Second, leaders and planners must be aware the outcome of military operations is never certain. Operational design is part of planning that one cannot assume away. In a war such as the American Revolution that a far-superior Great Britain should have won, British military leaders did not correctly identify, or in some cases, think out the design of their campaign(s). However, the great design examples of Washington illustrate how assessing and analyzing all elements of national power, both his own and his adversary's, can ultimately defeat the greatest of foes.

Third, all military leaders down to the lowest level must realize that tactical and operational successes on the battlefield do not always translate into winning a war.

Accomplished British military leaders claimed time and again how close they were to ending the war based on their tactical victories. Washington faced indescribable scrutiny from the civilian leadership, as well as in the military, for his lack of battlefield successes. Washington's ingenuity in operational design, though, created a scenario that defeating the enemy center of gravity did not always translate to great tactical or operational successes.

Lastly, General Washington provides each and every service member an example as a leader, strategist, and planner to both study and emulate. The British did not lose the war as some argue, although they certainly made miscalculations and mistakes in their analysis and planning. Rather, the Americans, specifically George Washington, won the war through well-thought out problem framing, a complete operational design, and dogged application of the design.

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